

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026949**Date Inspected:** 23-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 12W/13W/D2 Repair (Interior)
2. 12W/13W/A5 (Interior)
3. 12W/13W/A3 (Interior)
4. 11E/PP114/E4 Lifting Lug Hole W3 (Interior)

1. 12W/13W/D2 Repair (Interior)

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu performing the back-gouge operation of an ultrasonic rejectable indication on OBG deck plate section 12W /13W/D2 located at "Y" location 5910 mm. The excavated area for repair was: (40 mm wide; 790 mm length; and 25 mm in depth).

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu (Welder ID 2188) performing the repair welding operation on an excavation as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on OBG bottom plate section 12W/13W at weld location D2. The excavated area was as noted above and this QA Inspector observed QC Inspector Bernie Docena verify that the preheat temperature was at the minimum of 250 Degrees F and that the welding parameters (Amps, Volts, and Travel Speed) were in accordance with WPS D1.5 - 1004 Repair. The welding parameters observed at this location appeared to be in general compliance with

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approved WPS and the contract specifications.

2. 12W/13W/A5 (Interior)

This QA Inspector randomly observed ABF welding operator Richard Garcia (ID 5892) performing the Flux Core Arc Welding with gas (FCAW-G) process in the (4G) overhead position on face B of "A" deck, at 13W/14W section A5 of the OBG. This QA Inspector observed QC Inspector Sal Merino monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=261/V=23.1/TS=280/HI=1.21). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

3. 12W/13W/A3 (Interior)

This QA Inspector randomly observed ABF welding operator Rory Hogan (ID 3186) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a "Bug-O" motorized rail system with a magnetic base attached in the (4G) overhead position on face "B" of deck plate "A3", at 12W/13W of the OBG. This QA Inspector observed QC Inspector Sal Merino monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=232/V=23.8/TS=190/HI=1.74). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

QA Ultrasonic Inspection

This QA Inspector performed Ultrasonic Testing (UT) on approximately 25% of the welds at the locations listed below. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1. 5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date.

13E/14E/A2.2 MT and UT from 2050mm-3650mm joint is SPCM.

13E/14E/A3 MT and UT from 0mm-1250mm joint is SPCM.

12W/13W/A1.2 UT

This QA Inspector randomly observed QC Inspector Sal Merino perform a final magnetic particle inspection of the weld area on "A" deck lifting lug hole section 11E/PP111/E4 at weld locations W1 and W3. This QA Inspector observed that Mr. Merino found no rejectable indications and the work appeared to be in general conformance with the contract specifications.

4. 11E/PP114/E4 Lifting Lug Hole W3 (Interior)

This QA Inspector randomly observed ABF welder Jorge Lopez performing the back-gouge operation of face "B" on "A" deck Lifting Lug Hole 11E/PP114/E4/W3. This QA Inspector observed QC Inspector Sal Merino perform a Magnetic Particle Inspection (MT) of the backgouge to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

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This QA Inspector randomly observed ABF welder Jorge Lopez (Welder ID 6149) performing welding operations as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on "A" deck Lifting Lug Hole 11E/PP114/E4/W3. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Sal Merino verify that the preheat temperature and that the welding parameters (Amps=135) were in accordance with ABF-WPS-D15-1110A-Revision 1. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
